language "insoluble." Support for this language can be found on page 4, line 11 of the specification.

Discussion of Rejection Under 35 U.S.C. § 102

The Examiner rejected Claims 1-3, 6, and 16 under 35 U.S.C. § 102(e) as being anticipated by Pancholi *et al.*

To be anticipatory under 35 U.S.C. § 102, a reference must teach each and every element of the claimed invention. *See Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379 (Fed. Cir. 1986). "Invalidity for anticipation requires that all of the elements and limitations of the claim are found within a single prior art reference....There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." *See Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565 (Fed. Cir. 1991).

Pancholi *et al* discloses cell wall extracts in 50 mM Tris-HCL buffer pH 6.8 containing 5 mM EDTA, 5 mM MgCl2, and 30% raffinose. Claim 1 has been amended to add the limitation "wherein the acid treatment is substantially free of added raffinose...." Pancholi *et al* does not teach all of the elements and the limitations of Claim 1, as now amended.

Accordingly, Applicants respectfully request withdrawal of all rejections under 35 U.S.C. § 102, and allowance of the pending application.

Discussion of Rejection Under 35 U.S.C. § 103

The Examiner rejected Claims 1-21 under 35 U.S.C. § 103(a) as being unpatentable over Kawai *et al* in view of Pancholi *et al* and Converse *et al.*

The invention recited in the pending claims would not be obvious to one with ordinary skill in the art. To establish a *prima facie* case of obviousness a three-prong test must be met. First, there must be some suggestion or motivation, either in the references or in the knowledge generally available among those of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success found in the prior art. Third, the prior art references must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991).

The Kawai reference teaches soluble extracts of *L. fermentum*, which have antibacterial properties against certain types of bacteria. There is no teaching of the use of an acidic solution to prepare the cell wall extracts. Further, there is no teaching or suggestion that the composition is useful for immunostimulatory or anti-cancer uses.

The Pancholi reference teaches the incubation of bacteria with an enzyme (lysin or mutanolysin) in a buffered solution containing 30% raffinose, at pH 6.8, at 37°C to produce the enzymatic degradation products that are useful for the extract. The enzymatic addition is essential to the production of the product, and the pH and temperature requirements are merely there to optimize enzymatic activity. There is no teaching that an acidic pH can be used to prepare the extract without the concomitant presence of both the enzyme and the raffinose. Further, there is also no teaching or suggestion that the composition of Pancholi would be useful for immunostimulatory or anti-cancer treatments.

The Converse reference teaches a method of removing lipids from compositions using chloroform.

The cited prior art contains no suggestion or motivation to combine the Kawai, Pancholi, and Converse references. There is no motivation to modify the method of Kawai to treat the bacterial material with an acidic solution. Thus, the first part of the three-pronged test fails.

The second part of the three-pronged test states that there must be a reasonable expectation of success found in the prior art. Since Kawai's autoclave method of extracting bacterial materials worked well at a neutral pH, there is no suggestion that the method would work better at a low pH. Further, since the Kawai reference teaches only that its bacterial material has antibacterial properties (rather than immunostimulatory properties), one would not be driven to consider that such a composition, upon treatment with an acidic solution, would have immunostimulatory properties.

The third part of the three-pronged test for obviousness requires that the prior art must teach or suggest all the claim limitations. The Kawai, Pancholi, and Converse references do not teach all of the limitations of the claimed invention. None of the references teaches the use of a solution with an acidic pH below 6.8 to treat the bacterial material. Additionally, none of the cited references teaches the obtaining of an immune stimulating composition.

In conclusion, the three-prong test for *prima facie* obviousness has not been met. Accordingly, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 103, and allowance of the pending application.

Applicants have endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. Accordingly, amendments to the claims, the reasons therefor, and arguments in support of the patentability of the pending claim set are presented above. Any claim amendments which are not specifically discussed in the above remarks are made in order to improve the clarity of claim language, to correct grammatical mistakes or ambiguities, and to otherwise improve the capacity of the claims to particularly and distinctly point out the invention to those of skill in the art. In light of the above amendments and remarks, reconsideration and withdrawal of the outstanding rejections is specifically requested.

The specific changes to the specification and the amended claims are shown on a separate set of pages attached hereto and entitled **VERSION WITH MARKINGS TO SHOW CHANGES MADE,** which follows the signature page of this Amendment. On this set of pages, the insertions are double underlined while the ~~deletions are stricken through~~.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410. If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is respectfully requested to initiate the same with the undersigned.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 27 Nov 2002

By: _____

Dale C. Hunt, Ph.D.
Registration No. 41,857
Customer No. 20,995
(619) 235-8550

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Amended) A method for producing an immune stimulating composition comprising:

treating bacteria containing peptidoglycan with an acid treatment solution having a final pH of less than ~~pH 7;~~ 6.8, wherein said solution is substantially free of added raffinose and added enzymes;

removing ~~large cellular~~ insoluble components from the solution resulting from said treating; ~~and~~

saving the remaining solution and adjusting the pH to a physiologically acceptable pH; and

obtaining thereby an immune stimulating composition.

2. (Amended) The method of Claim 1 wherein said removal of ~~large cellular~~ insoluble components is by centrifugation.

4. (Amended) The method of Claim 1 further comprising heating at about 100°C during said ~~treating with~~ acid treatment.

16. (Amended) A method for producing a peptidoglycan extract from bacteria comprising:

heating a Gram positive bacteria in a solution comprising water and acid~~;~~, wherein said solution is substantially free of added raffinose and added enzymes, and wherein said solution has a final pH of less than 6.8;

removing ~~large cellular~~ insoluble particles from the solution resulting from said heating;

adjusting the pH of the remaining solution to about 7.0~~.~~; and

obtaining thereby an immune stimulating composition.

17. (Amended) The method of claim 16 wherein said ~~acid treatment~~ heating is at a final pH of about 2.0.